

Software Accelerates Computing Time for Complex Math

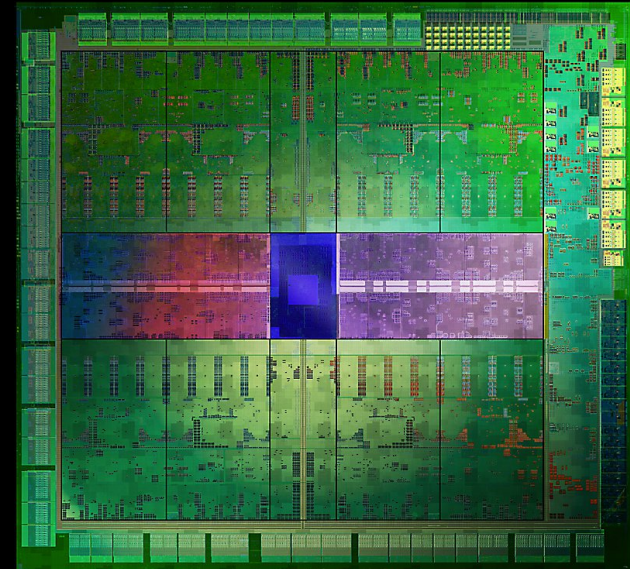


Ames Research Center

***EM Photonics Inc.
Newark, Delaware***

NASA Technology

- ◆ Scientists at the Space Agency use supercomputers to calculate large algorithms based on linear algebra that are used in setting up climate models
- ◆ Scientists using regular computers, which lack the processing power of supercomputers, often must wait far longer for algorithms to be calculated



Technology Transfer

- ◆ Through Small Business Innovation Research (SBIR) funding, EM Photonics utilized graphics processing unit (GPU) technology, originally used to run video game graphics, and programmed it to perform scientific computing
- ◆ The company commercialized the technology as CULA tools, which can compute the industry-standard LAPACK library of linear algebra equations

Benefits

- ◆ EM Photonics offers CULA software for both dense and sparse computations
- ◆ CULA's simplified interface makes it far simpler for scientists to set up computations
- ◆ In some cases, processing times can be reduced by more than 100-fold